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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,741	03/05/2002	Sang-Hyuck Ahn	6161.0013.AA	7018

7590 12/09/2004

McGuire Woods
Suite 1800
1750 Tysons Boulevard
McLean, VA 22102-4215

EXAMINER	
DONG, DALEI	

ART UNIT	PAPER NUMBER
2879	

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	10/087,741	AHN ET AL.	
	Examiner	Art Unit	
	Dalei Dong	2879	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 22 November 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☒ The proposed amendment(s) will not be entered because:

   (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See Continuation Sheet*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☒ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: *1-15*.

   Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☐ Other: _____

Joseph Williams

Continuation of 5. does NOT place the application in condition for allowance because: the argument provided by the Applicant deemed not persuasive. In response to Applicant's argument that Kurokawa reference does not teach depositing an emitter surface treatment agent on the substrate to cover the emitter. Examiner respectfully disagrees with Applicant's assertion. Examiner asserts that as clearly show in Figure 4, the emitter surface treatment agent (6) composed of a solution obtained by diluting isobutyl methacrylate with butyl carbitol, is deposited on the substrate (1) and covers the emitter (3). Even though, emitter surface treatment agent (6) and the emitter (3) are deposited at the same time, however Applicant merely claims the emitter surface treatment agent cover the emitter and does not differentitate the timing of the deposition of emitter and emitter surface treatment agent. Furthermore, clearly shown, emitter (3) is embedded within the emitter surface treatment agent (6) and thus covers the emitter.

Also, in response to Applicant's argument that Kurokawa reference does not indicate that the emitter surface treatment agent (6) is a surface treatment agent. Examiner respectfully disagrees with the Applicant's argument. Examiner asserts that as disclosed by the Kurokawa reference the organic material or emitter surface treatment agent (6) positioned between the graphite particles (3) and the chromium electrode (2) is carbonized into a carbide 8 as shown in the circle magnification in Fig. 5 and remains after the treatment. This carbide 8 fixes the graphite particles 3 to the chromium electrode 2 (see column 9, lines 6-11). Examiner interprets that if the organic material turns into a carbide and bonds the graphite particle surface or the emitter to the surface of the cathode, it is inherent that the organic material or carbide "treats the surface" of the emitter and the cathode in order to bond the two surfaces together. Thus, Examiner interprets that the organic material 6 is a surface treatment agent.

Further, in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both Chang reference and Kurokawa reference teaches a method of fabricating a field emission device. Also, even though the tape of Chang is hardened before being applied, however it is old and well known in the art that a adhesive resin instead of a hardened tape material is easier to apply and also achieves a closer contact to the applied surface and furthermore, better conforms to the contour of the apparatus in which the adhesive is applied without necessary bending and processing as needed for a hardened tape material. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilize the resin and hardened process of Kurokawa for the adhesive tape material of Chang in order to achieve closer contact to the surface and provide a improved adhesiveness and thus remove the badly attached carbon nanotube and further straighten the carbon nanotube layer to a proper direction..

Joseph Williams